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Response

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Amendments to the Claims:

Claims 1-12 and 15-22 are currently pending in the application. A listing of the entire set of pending claims 1-12 and 15-22 is submitted herewith per 37 CFR §1.121. This listing of claims 1-12 and 15-22 along with cancelled claims 13 and 14 will replace all prior versions, and listings, of claims in the application.

Listing of Claims 1-22:

1. (Previously Presented) A cathode ray tube convergence circuit, comprising:
 - a low voltage power supply;
 - a high voltage power supply; and
 - a low-power dissipating switching network which switches between said low voltage power supply and said high voltage power supply relative to said high voltage power supply.
2. (Previously Presented) The cathode ray tube convergence circuit as recited in claim 1, wherein a power dissipation of said low-power switching network is in the range of approximately 25 Watts to approximately 50 Watts.
3. (Previously Presented) The cathode ray tube convergence circuit as recited in claim 1, wherein said low voltage power supply operates between approximately 12V and approximately 24V.

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4. (Previously Presented) The cathode ray tube convergence circuit as recited in claim 1, further comprising a divided rail circuit.

5. (Previously Presented) The cathode ray tube convergence circuit as recited in claim 1, wherein said low voltage power supply drives a standard deflection yoke of a cathode ray tube.

6. (Previously Presented) The cathode ray tube convergence circuit as recited in claim 1, wherein said high-voltage power supply drives a convergence yoke during a retrace interval of a cathode ray tube.

7. (Previously Presented) The cathode ray tube convergence circuit as recited in claim 1, further comprising:

an output stage receiving a first power from one of said power supplies at a particular time, and a second power from the other of said power supplies does not traverse said switch network at said particular time.

8. (Previously Presented) The cathode ray tube convergence circuit as recited in claim 1, wherein said switching network includes at least one field effect transistor which dissipates less than approximately 200mW of power.

9. (Previously Presented) The cathode ray tube convergence circuit as recited in claim 1, wherein said switching network includes transistors and diodes.

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10. (Previously Presented) The cathode ray tube convergence circuit as recited in claim 1, wherein the convergence circuit drives convergence yokes of the cathode ray tube.

11. (Previously Presented) The cathode ray tube convergence circuit as recited in claim 1, further comprising:

a voltage feedback circuit to initiate said switching between said low voltage power supply and said high voltage power supply.

12. (Previously Presented) A cathode ray tube convergence circuit, comprising:

a positive polarity convergence circuit including a high positive voltage rail and a low positive voltage rail;

a negative polarity convergence circuit including a high negative voltage rail and a low negative voltage rail; and

wherein said positive and negative polarity convergence circuits further include a switching network which operates relative to said high positive voltage rail and said high negative voltage rail.

13. (Cancelled)

14. (Cancelled)

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15. (Previously Presented) The cathode ray tube convergence circuit as recited in claim 12, wherein said positive polarity convergence circuit outputs high and low positive voltages to deflection yokes of a cathode ray tube.

16. (Previously Presented) The cathode ray tube convergence circuit as recited in claim 15, wherein said negative polarity convergence circuit outputs high and low negative voltages to deflection yokes of a cathode ray tube.

17. (Previously Presented) The cathode ray tube convergence circuit as recited in claim 12, wherein said positive polarity convergence circuit and said negative polarity convergence circuit constitute a boost-on-demand circuit which outputs a high voltage to drive at least one convergence yoke for a relatively short time duration so that output power is conserved.

18. (Previously Presented) The cathode ray tube convergence circuit as recited in claim 17, wherein said boost-on-demand circuit outputs a low voltage for approximately 75% of an operating time of a the cathode ray tube.

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19. (Previously Presented) A cathode ray tube convergence circuit, comprising:

a polarity convergence circuit including a high voltage rail and a low voltage rail;

an output stage connected to said polarity convergence circuit; and

a switching network switching the connection of said output stage to said polarity convergence circuit between said high voltage rail and said low voltage rail relative to said high voltage rail.

20. (Previously Presented) The cathode ray tube convergence circuit as recited in claim 19, wherein said switching network includes a transistor having a control input coupled to said high voltage rail.

21. (Previously Presented) The cathode ray tube convergence circuit as recited in claim 19, further comprising:

a voltage feedback controlling said switching network in switching the connection of said output stage to said first polarity convergence circuit between said high voltage rail and said low voltage rail relative to said high voltage rail.

22. (Previously Presented) The cathode ray tube convergence circuit as recited in claim 21, wherein said switching network includes a transistor having a control input coupled to said high voltage rail.